THE ASTROPHYSICAL JOURNAL LETTERS

CONTENTS OF VOLUME 482, PART 2

1997 June 10, Number 1

| BEYOND GENUS STATISTICS: A UNIFYING APPROACH TO THE MORPHOLOGY OF COSMIC STRUCTURE Jens Schmalzing & Thomas Buchert | L1 |
|--|-----|
| QUASAR VARIABILITY AND GRAVITATIONAL MICROLENSING M. R. S. Hawkins & A. N. Taylor | L5 |
| DERIVING THE QUASAR LUMINOSITY FUNCTION FROM ACCRETION-DISK INSTABILITIES Aneta Siemiginowska & Martin Elvis | L9 |
| THE LUMINOSITY-TEMPERATURE RELATION AT $z=0.4$ FOR CLUSTERS OF GALAXIES R. F. Mushotzky & C. A. Scharf | L13 |
| GALACTIC MICROWAVE EMISSION AT DEGREE ANGULAR SCALES Angélica de Oliveira-Costa, A. Kogut, Mark J. Devlin, C. Barth Netterfield, Lyman A. Page, & Edward J. Wollack | L17 |
| TOWARD MORE PRECISE PHOTOMETRIC REDSHIFTS: CALIBRATION VIA CCD PHOTOMETRY Robert J. Brunner, Andrew J. Connolly, Alexander S. Szalay, & Matthew A. Bershady | L21 |
| A GROUP OF RED, Lyα-EMITTING, HIGH-REDSHIFT GALAXIES Paul J. Francis, Bruce E. Woodgate, & Anthony C. Danks | L25 |
| POYNTING JETS FROM BLACK HOLES AND COSMOLOGICAL GAMMA-RAY BURSTS P. Mészáros & M. J. Rees | L29 |
| HYDRODYNAMICAL MODELS OF SUPERLUMINAL SOURCES J. L. Gómez, J. M. Martí, A. P. Marscher, J. M. Ibáñez, & A. Alberdi | L33 |
| SCATTERED NUCLEAR CONTINUUM AND BROAD Hα IN CYGNUS A P. M. Ogle, M. H. Cohen, J. S. Miller, H. D. Tran, R. A. E. Fosbury, & R. W. Goodrich | L37 |
| PROBING GALACTIC CENTER BLACK HOLE CANDIDATES WITH FAR-INFRARED SPECTROSCOPY Philip R. Maloney, Sean W. J. Colgan, & David J. Hollenbach | L41 |
| SiO EMISSION FROM THE GALACTIC CENTER MOLECULAR CLOUDS J. Martín-Pintado, P. de Vicente, A. Fuente, & P. Planesas | L45 |
| CAPTURE OF FIELD STARS BY GLOBULAR CLUSTERS IN DENSE BULGE REGIONS Eduardo Bica, Horacio Dottori, Irapuan Rodrigues de Oliveira Filho, Sergio Ortolani, & Beatriz Barbuy | L49 |
| POSTBURST QUASI-PERIODIC OSCILLATIONS FROM GRO J1744-28 AND FROM THE RAPID BURSTER Jefferson M. Kommers, Derek W. Fox, Walter H. G. Lewin, Robert E. Rutledge, Jan van Paradijs, & Chryssa Kouveliotou | L53 |
| PHASE DIFFERENCE AND COHERENCE AS DIAGNOSTICS OF ACCRETING COMPACT SOURCES Xin-Min Hua, Demosthenes Kazanas, & Lev Titarchuk | L57 |
| RADIO DETECTION OF SN 1986E IN NGC 4302 Marcos J. Montes, Schuyler D. Van Dyk, Kurt W. Weiler, Richard A. Sramek, & Nino Panagia | L61 |
| DISCOVERY OF TWO SIMULTANEOUS KILOHERTZ QUASI-PERIODIC OSCILLATIONS IN KS 1731–260 Rudy A. D. Wijnands & Michiel van der Klis | L65 |
| TIME-RESOLVED ULTRAVIOLET OBSERVATIONS OF THE GLOBULAR CLUSTER X-RAY SOURCE IN NGC 6624: THE SHORTEST KNOWN PERIOD BINARY SYSTEM South For the State of the Stat | L69 |

CONTENTS

| THE ACCRETING WHITE DWARF IN THE CLOSE BINARY EUVE J1016-053 S. Vennes, J. Dupuis, S. Bowyer, & A. K. Pradhan | Page L73 |
|--|-------------------|
| ON A RAPID LITHIUM ENRICHMENT AND DEPLETION OF K GIANT STARS R. de la Reza, N. A. Drake, L. da Silva, C. A. O. Torres, & E. L. Martin | L77 |
| CLUSTERING OF YOUNG STARS IN TAURUS, OPHIUCHUS, AND THE ORION TRAPEZIUM M. Simon | L81 |
| SPATIAL RESOLUTION OF THE R AQUARII BINARY SYSTEM J. M. Hollis, J. A. Pedelty, & R. G. Lyon | L85 |
| HR 6060: THE CLOSEST EVER SOLAR TWIN? G. F. Porto de Mello & L. da Silva | L89 |
| STAR FORMATION AND METAL PRODUCTION AS A FUNCTION OF REDSHIFT: THE ROLE OF THE MULTIPHASE ISM Marco Spaans & C. Marcella Carollo | L93 |
| COLLIMATION OF ASTROPHYSICAL JETS: THE PROTO-PLANETARY NEBULA He 3-1475 Kazimierz J. Borkowski, John M. Blondin, & J. Patrick Harrington | L97 |
| NEUTRAL ATOMIC CARBON IN THE GLOBULES OF THE HELIX K. Young, P. Cox, P. J. Huggins, T. Forveille, & R. Bachiller | L101 |
| CARBON IN THE DIFFUSE INTERSTELLAR MEDIUM Ulysses J. Sofia, Jason A. Cardelli, Kenneth P. Guerin, & David M. Meyer | L105 |
| ELECTRON DENSITIES IN THE SOLAR POLAR CORONAL HOLES FROM DENSITY-SENSITIVE LINE RATIOS OF Si VIII and S x G. A. Doschek, H. P. Warren, J. M. Laming, J. T. Mariska, K. Wilhelm, P. Lemaire, U. Schühle, & T. G. Moran | L109 |
| ERRATUM DISCOVERY OF A SUBPARSEC JET 4000 SCHWARZSCHILD RADII AWAY FROM THE CENTRAL ENGINE OF NGC 4258 J. R. Herrnstein, J. M. Moran, L. J. Greenhill, P. J. Diamond, M. Miyoshi, M. Nakai, & M. Inoue | L113 |
| INSTRUCTIONS TO AUTHORS OF LETTERS, AND RECENT LETTERS ABSTRACTS AND OTHER BIBLIOGRAPHICAL SERVICES | Inside Back Cover |
| INSTRUCTIONS FOR ELECTRONIC MANUSCRIPT SUBMISSION | Back Cover |
| 1997 June 20, Number 2 | |

| | 0- |
|--|------|
| COSMIC TIME DILATION I. E. Segal | L115 |
| TIME DILATION IN THE SUPERNOVA LIGHT CURVE AND THE VARIABLE MASS HYPOTHESIS J. V. Narlikar & H. C. Arp | L119 |
| PECULIAR VELOCITIES OF CLUSTERS IN COLD DARK MATTER MODELS Stefano Borgani, Luiz N. da Costa, Wolfram Freudling, Riccardo Giovanelli, Martha P. Haynes, John Salzer, & Gary Wegner | L121 |
| RESULTS FROM GAMMA-RAY OPTICAL COUNTERPART SEARCH EXPERIMENT: A REAL TIME SEARCH FOR GAMMA-RAY BURST OPTICAL COUNTERPARTS Brian Lee, Carl Akerlof, David Band, Scott Barthelmy, Paul Butterworth, Thomas Cline, Donald Ferguson, Neil Gehrels, & Kevin Hurley | L125 |
| THE TEMPERATURE OF EXTENDED GAS IN ACTIVE GALAXIES: EVIDENCE FOR MATTER-BOUNDED CLOUDS A. S. Wilson, L. Binette, & T. Storchi-Bergmann | L131 |
| THE FUELING OF NUCLEAR ACTIVITY: THE BAR PROPERTIES OF SEYFERT AND NORMAL GALAXIES John S. Mulchaey & Michael W. Regan | L135 |
| SPECTROSCOPIC EVIDENCE FOR A SUPERMASSIVE BLACK HOLE IN NGC 4486B John Kormendy, Ralf Bender, John Magorrian, Scott Tremaine, Karl Gebhardt, Douglas Richstone, Alan Dressler, S. M. Faber, Carl Grillmair, & Tod R. Lauer | L139 |

CONTENTS

| CONTENTS | V |
|--|-------------------|
| | Page |
| THE MASS INFLOW RATE IN THE BARRED GALAXY NGC 1530 Michael W. Regan, Stuart N. Vogel, & and Peter J. Teuben | L143 |
| USE OF RED SUPERGIANT SPECTRAL FEATURES AS AGE INDICATORS IN STARBURST REGIONS $Y.D.Mayya$ | L149 |
| BLACK HOLE SPIN IN X-RAY BINARIES: OBSERVATIONAL CONSEQUENCES S. N. Zhang, Wei Cui, & Wan Chen | L155 |
| ASCA OBSERVATIONS OF PSR 1929+10 AND PSR 0950+08 F. YH. Wang & J. P. Halpern | L159 |
| EVIDENCE FOR "PROPELLER" EFFECTS IN X-RAY PULSARS GX 1+4 AND GRO J1744-28 Wei Cui | L163 |
| NEUTRON STAR MASSES AND RADII AS INFERRED FROM KILOHERTZ QUASI-PERIODIC OSCILLATIONS W. Zhang, T. E. Strohmayer, & J. H. Swank | L167 |
| DISCOVERY OF OPTICAL PULSATIONS IN V2116 OPHIUCHI = GX 1+4 Francisco J. Jablonski, Marildo G. Pereira, João Braga, & Clemens D. Gneiding | L171 |
| FIRST HUBBLE SPACE TELESCOPE OBSERVATIONS OF MIRA AB WIND-ACCRETING BINARY SYSTEM Margarita Karovska, Warren Hack, John Raymond, & Edward Guinan | L175 |
| FLUCTUATIONS IN STELLAR WINDS AND THEIR POSSIBLE CONNECTIONS TO THE WIND MASS FLUX $\it Tzihong\ Chiueh$ | L179 |
| LINEAR POLARIZATION DUE TO LOWER LEVEL DEPOPULATION PUMPING IN STELLAR ATMOSPHERES Javier Trujillo Bueno & Egidio Landi Degl'Innocenti | L183 |
| ANTIHELIUM IN COSMIC RAYS: A NEW UPPER LIMIT AND ITS SIGNIFICANCE J. F. Ormes, A. A. Moiseev, T. Saeki, K. Anraku, S. Orito, R. L. Golden, M. Imori, S. Inaba, B. L. Kimbell, N. Kimura, Y. Makida, H. Matsumoto, H. Matsunaga, J. W. Mitchell, M. Motoki, J. Nishimura, M. Nozaki, R. E. Streitmatter, J. Suzuki, K. Tanaka, I. Ueda, N. Yajima, T. Yamagami, A. Yamamoto, T. Yoshida, & K. Yoshimura (BESS Collaboration) | L187 |
| MEASUREMENTS OF THE COSMIC-RAY POSITRON FRACTION FROM 1 TO 50 GeV S. W. Barwick, J. J. Beatty, A. Bhattacharyya, C. R. Bower, C. J. Chaput, S. Coutu, G. A. de Nolfo, J. Knapp, D. M. Lowder, S. McKee, D. Müller, J. A. Musser, S. L. Nutter, E. Schneider, S. P. Swordy, G. Tarlé, A. D. Tomasch, & E. Torbet (The HEAT Collaboration) | L191 |
| KINEMATICS OF THE MOLECULAR SHEATH OF THE HH 111 OPTICAL JET Neil M. Nagar, Stuart N. Vogel, James M. Stone, & Eve C. Ostriker | L195 |
| THE ABUNDANCE OF Mg IN THE INTERSTELLAR MEDIUM Edward L. Fitzpatrick | L199 |
| DEUTERATED METHANOL IN THE ORION COMPACT RIDGE S. B. Charnley, A. G. G. M. Tielens, & S. D. Rodgers | L203 |
| DETECTION OF ZONAL SHEAR FLOWS BENEATH THE SUN'S SURFACE FROM f -MODE FREQUENCY SPLITTING $A.G.Kosovichev\&J.Schou$ | L207 |
| SURVIVAL OF PLANETARY SYSTEMS William R. Ward | L211 |
| LABORATORY DETECTION AND SUBMILLIMETER SPECTRUM OF NaCCH ($\tilde{X}^{-1}\Sigma$) B. Z. Li & L. M. Ziurys | L215 |
| INSTRUCTIONS TO AUTHORS OF LETTERS, AND RECENT LETTERS ABSTRACTS AND OTHER BIBLIOGRAPHICAL SERVICES | Inside Back Cover |

Back Cover

INSTRUCTIONS FOR ELECTRONIC MANUSCRIPT SUBMISSION